

Armand Gonzales
6816 London Drive
Eureka, CA 95503

November 10, 1998

Mr. Bruce Halstead
U.S. Fish and Wildlife Service
1125 16th Street
Room 209
Arcata, CA 95521-5582

Dear Mr. Halstead,

I am employed as a biologist with the California Department of Fish and Game (DFG) but I am submitting to you my personal comments on the Pacific Lumber Company (PL) Habitat Conservation Plan (HCP). I have attached four letters and memoranda pertaining to the northern spotted owl. All documents are public information. These include my letter to Mr. Mark Stopher dated September 29, 1998 regarding information in the PL HCP pertaining to northern spotted owls, comments to you from Dr. Alan Franklin, Colorado State University, dated October 8, 1998, with his comments on the information in the HCP pertaining to northern spotted owls, a letter to Mr. Roger Thompson, California Department of Forestry and Fire Protection from Mr. Donald B. Koch, California Department of Fish and Game, dated October 26, 1998 pertaining to violations of the Northern Spotted Owl Resource Plan (NSORP), an agreement between DFG and PL intended to govern timber harvest operation while protecting northern spotted owls, and finally a letter to Mr. Tom Herman, Pacific Lumber Company, from you, dated September 28, 1998 regarding a violation of the Spotted Owl Management Plan, an analogous federal agreement to the NSORP.

I am submitting this information to you because I am concerned that there will not be sufficient enforcement capability or will by the USFWS should violation of the HCP occur. I am also concerned there will be insufficient oversight of the conditions of the HCP to identify when violations have occurred. The protection measures and mitigation measures in the HCP are not enforceable in that they are ambiguous in intent and terminology. There are too many undefined thresholds in the document, i.e. statements stating "where feasible" or "if possible". The Department of Forestry and Fire Protection will be the agency on the ground, and they have not been included in the writing of the document to the extent that the language in the HCP is unenforceable, and violations will not be punished.

AG-1

There is no biological justification for the thresholds in the document. The standards set for northern spotted owls, 75% and 67% have no biological meaning. Allowing take at this level, given that two scientifically credible demography studies in the area show ongoing declines in the local spotted owl population is going to lead to the local extinction of this species when

AG-2

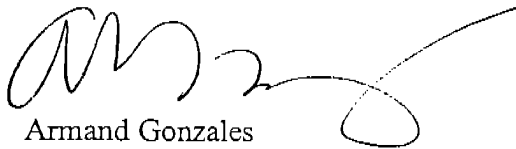
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combined with normal but unpredictable stochastic events. PL can to the negotiating table with far less than any other HCP applicant in terms of credible scientific information regarding those species they seeking coverage in the HCP, and are asking for much more in terms of allowable take. This is a bad precedent for our natural resources, and I believe an abrogation of your responsibility to the public trust. AG-2

PL has shown that they cannot be trusted to comply with the no-take agreements they have with the USFWS and DFG. How can you trust them with more responsibility? I believe it would be far better to defend a "takings" lawsuit that defend this document in court. It is biologically indefensible. It is also amazing how the company can renegotiate the HCP if another company gets less restriction on an element of their HCP. This HCP is allowing take at a level given the assurances of long term protection at the defined levels. How can we allow take, and then allow the mitigation to be negotiated away? AG-3

The PL HCP is a bad document and a bad precedent for natural resources. It should have never been part of a land acquisition deal to begin with. Please to the right thing by disapproving the HCP. PL has given you the justification for denying their request by their own actions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Armand Gonzales', with a long, sweeping horizontal stroke extending to the right.

Armand Gonzales

State of California


The Resources Agency

MEMORANDUM

Date: September 29, 1998

To : Mark Stopher

From : Department of Fish and Game - Armand Gonzales



Subject: Pacific Lumber Company HCP, Northern Spotted Owl

Dear Mark,

Please accept my apology for the delay of my final draft comments pertaining to the Pacific Lumber Habitat Conservation Plan and the treatment they propose for Northern spotted owls. The most recent version of the measures PL has proposed for NSO's includes their justification for February and March surveys, a method for establishing a baseline population estimate, and suggested changes to the HCP language for survey and monitoring.

Item 1. "What information is available to support the use of Feb-March surveys as a reliable method to detect NSO's and thereby minimize incidental take?"

The information provided by PL to justify early surveys refers primarily to the Simpson Timber Company data provided in their (STCO) annual reports to the Fish and Wildlife Service to satisfy conditions of their HCP. The STCO data was collected and reported to FWS to establish a survey methodology which addressed the second year of surveys of a plan area where either operations had not yet begun or were not continuous through to the second year of the plan or beyond. The "spot calling method" established amongst other things, the number of visits, but the only reference to timing of visits is that at least one survey visit would be conducted after April 1 when no owls were detected, or for plans where owls were detected, one follow-up visit was required after May 1. The information regarding the probability of detecting owls on the first call, second call, and so on does not by itself shed any light on the appropriateness of beginning surveys in February or completing surveys in March.

PL also suggested additional justification for early surveys was available from Dr. Courtney and SEI. I am not familiar with this analysis or whether it was conducted on data collected locally or not. I am also skeptical whether the data actually addresses the issue of early surveys as opposed to probability of detection relative to effort. The reference by PL does not include any specific information to clarify these questions.

Based on my experience, the issue of early surveys is controlled by weather more than anything else. This past winter was relatively severe with heavy rains in the spring. The current protocol

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states surveys should not be conducted during periods of inclement weather conditions such as high winds, rain, heavy fog, or high noise levels. In addition to normal heavy rains and fog, weather patterns in the vicinity of PL lands are notorious for high wind conditions. Without biasing the results by conducting surveys during poor conditions, it will be physically impossible to complete surveys in March.

Another issue with early surveys is that with poor climatic conditions, reproduction is potentially delayed. If owls are not actively defending breeding territories, they may not be responsive to surveys conducted early in the season.

There are potentially direct and indirect impacts associated with conducting surveys concurrent with operations. If present and future conservation efforts will rely on survey results, it is imperative to not introduce a potentially significant confounding variable which cannot be quantified. For the past eight years, we have maintained a no-operation requirement during the survey period to avoid influencing survey results. The influence could be either positive or negative but in either case, the survey results would not be representative. Equal probability of detection would be lost rendering statistical inferences to the population based on these surveys with little precision and high bias.

Finally, the responsiveness of owls to calls is dependent on factors such as the experience of the caller to recognize the varied repertoire of NSO calls, surveyors must have good hearing abilities, be diligent, and be physically capable of hearing faint responses. Also, whether conditions have an effect on both hearing responses and in eliciting a response, i.e. owls may be less responsive in inclement weather. We have seen with increasing frequency, owls to be less responsive at known sites. The reason for this is unknown, but I can see many potential situations where an historic site is determined to be unoccupied based on early or abbreviated survey efforts. This draft is also silent to it's treatment of historic sites. Currently sites must be unoccupied for three years before they are considered abandoned.

Item 2. What methods will be used to establish a baseline NSO population estimate and monitor the population through the HCP period.

PL has proposed to conduct total surveys during the first five years (pending power analysis) and to use sampling thereafter. PL has one good year of near complete ownership surveys. Prior years surveys were conducted primarily based on need where timber harvest was planned. If annual survey results are planned to contribute to calculations of population size, growth rate, lambda, or carrying capacity, greater emphasis on collecting representative samples in a consistent and unbiased manner needs to be considered. While PL has proposed to conduct surveys, they have not explained how this information will be translated into a baseline population estimate. It may be impossible to reach a valid estimate of the population if confounding variables have not been accounted for appropriately.

Minimizing efforts as proposed to only two visits per year, early in the season, concurrent with

operations will not likely produce reliable results needed for population estimates. It would be better to go beyond the minimum effort for some period of time to establish a reliable baseline, and scale back proportionately based on meeting pre-established levels of confidence. Re-initiating a banding program at PL would go a long way towards meeting the assumptions of demographic and geographic closure and equal probability of detection.

AG-5

Item 3. Suggested changes to the HCP language for survey and monitoring strategy:

The survey method proposed by PL has many shortcomings which would likely confound the results to the point of unreliability. It does not make sense to expend the effort to conduct multi-year surveys if the results will not be biologically or statistically meaningful.

The surveys will not be required for activities other than timber harvest or for salvage logging done under a salvage exemption, but this does not include all the possible operations where owls may be impacted including road building, pre-commercial thinning, emergencies, rock and quarry operations. It is also unclear how this particular provision of the proposal tracks with the "total" protocol surveys suggested in other parts of the proposal. "Total surveys" or "total protocol surveys" are not common terminology and may not necessarily mean protocol surveys of the ownership. This point should be clarified.

The thresholds proposed by PL as "triggers" are, 1) if the population fall to 75% of baseline, for three consecutive years PL will meet with DFG and FWS to evaluate reasons for the decline and discuss means for management of the population, and 2) if the population fall to 67% of baseline for three consecutive years PL will meet with DFG and FWS to develop a no-take strategy. PL has not provided any justification for these thresholds. Without considering stochastic variation and the fact that both demographic studies in the region have shown a continuing and increasing decline in the spotted owl population over the past few years, picking "triggers" needs to be based on clear and convincing evidence that the probability of exacerbating the declining trend will not occur.

AG-6

Finally, if the draft Recovery Plan for NSO's had any influence in identifying the population thresholds proposed by PL, we should keep in mind the draft Recovery Plan was never finalized and is therefore unofficial. In the absence of a final draft or further understanding as to why the draft has not been finalized, reliance on this document is not recommended. I believe there were serious biological flaws in the draft Recovery Plan and we should be cautious to not allow a unilateral implementation of this plan.

My final comments is that we need to be sure the language is very clear and unambiguous as to what we are asking for and what we will require of PL. We should not leave any part of the proposal to be worked out later. We need full agency and public review prior to any approval of the plan. Simply planning to plan does not in my opinion constitute a conservation strategy.

COLORADO STATE UNIVERSITY
201 Wagar Building, Fort Collins, CO 80523
Voice: 970-491-5396 FAX: 970-491-1413 E-mail: alanf@cnr.colostate.edu

8 October 1998

Mr. Bruce Halstead
U. S. Fish and Wildlife Service
1125 16th Street
Room 209
Arcata, CA 95521-5582

RECEIVED
OCT 19 1998
D. F. G. — EUREKA

Dear Mr. Halstead:

I have attached a document entitled *Comments on the Proposed Northern Spotted Owl Conservation Plan of the Pacific Lumber Company Sustained Yield Plan/Habitat Conservation Plan (Public Review Draft - July 1998)* that contains my comments on the proposed Habitat Conservation Plan submitted to the U. S. Fish and Wildlife Service by Pacific Lumber Company (Permit numbers PRT-828950 and 1157). I have restricted my comments to the Northern Spotted Owl Conservation Plan (volume IV) contained within the proposed Habitat Conservation Plan.

I hope my comments are useful in assisting the U. S. Fish and Wildlife Service concerning their decisions on the adequacy of the Habitat Conservation Plan proposed by Pacific Lumber Company.

Sincerely,



Alan Franklin

enclosure

cc: Lynn Roberts, U.S. Fish and Wildlife Service
David Solis, U. S. Fish and Wildlife Service
✓ Armand Gonzales, California Department Fish and Game

owls on PALCO lands. I think this point is supported by my comments on the remaining sections of Volume IV of the PALCO HCP (see below).

The HCP also claims to be based on a "habitat-based approach which seeks to conserve viable populations of the NSO by insuring that the habitat requirements of the NSO are present throughout the life of the plan". In reviewing this HCP, it is important to consider what *habitat* is. Morrison et al. (1998) define habitat as an *area with a combination of resources and environmental conditions that promotes occupancy by individuals of a given species and allows those individuals to survive and reproduce*. Thus, habitat is not restricted to a single vegetation type, such as old-growth coniferous forest, but can consist of a combination of vegetation types at different scales. This point should be kept in mind when considering my comments on northern spotted owl habitat in the following sections.

NATURAL HISTORY (VOLUME IV, SECTION B):

A number of key elements, relevant to the development of a conservation strategy, are missing from the discussion of the natural history of northern spotted owls. First, the importance of edge between early and late-seral stage coniferous forest to reproduction was not discussed. A number of authors have discussed the importance of ecotones between early and late-seral stages for northern spotted owl foraging and reproduction in California; for example, Folliard (1993) and Thome et al. (1998) on private timberlands and Ward et al. (1998), Zabel et al. (1995), and Franklin (1997) on public lands. Thus, habitat (as defined in the preceding section) probably cannot be discretely classified as foraging and nesting as was done in the PALCO HCP for several reasons. First, foraging/nesting habitat is represented by the juxtaposition and inter-relationship of early- and late-seral stage vegetation. In other words, spotted owl habitat is some mixture of early- and late-seral stage vegetation. To view early seral-stage forest, as foraging habitat, separately from late-seral stage forest, as nesting habitat, misses the concept that it is the ecotone between these two vegetation types that may be important for reproductive success of nesting spotted owls. Second, the potential importance of interior, older forest was ignored. Franklin (1997) suggested that high fitness sites for northern spotted owls contained interior, older forest that promoted high survival in addition to ecotones between these forests and other vegetation types which promoted high fecundity. Thus, there may be a trade-off between maintaining older forest and early successional stages for promoting high fitness in northern spotted owls. However, this relationship suggests that older and younger forests cannot be considered separately but must be considered together in some landscape configuration at the site or territory scale.

BASLINE CONDITION (VOLUME IV, SECTION C):

In the first paragraph, the plan states that every known nest site and activity center for northern spotted owls has been protected from timber harvest under the protections of the Endangered Species Act and the California Forestry Practice Rules. However, no information is presented to document the extent of this protection. This would be useful information to assess whether future protection under the HCP will be better or worse than past protection measures.

projected NSO habitat in the plan area calls for a 46% reduction in high quality nesting habitat and an 82% reduction in medium quality nesting habitat in the first 20 years. This suggests that "take" based on removal of habitat components will probably be much higher than the plan states. What PALCO defines as high and medium quality habitat also includes those components (e.g., interior older forest) that appear to promote higher survival in northern spotted owls (see Franklin 1997). In my opinion, PALCO risks decreasing survival rates for a large number of northern spotted owls in areas where high and medium quality nesting habitat will be considerably reduced.

Out of the 147 northern spotted owl sites currently existing on PALCO land, only a maximum of 16 sites in the marbled murrelet Conservation Areas and two sites in Headwaters Forest¹ will be preserved. These 18 sites are 12% of the known sites which suggest that 88% of the sites will be managed through the rest of the plan. Thus, the bulk of the northern spotted owl sites on PALCO lands will be subject to the problems I have discussed above.

I believe riparian protection zones will contribute little to northern spotted owl habitat in the long run. First, the riparian protection zones have no core or interior forest habitat (that part of the forest that is at least 100 m from an edge) that has been positively associated with survival of northern spotted owls (Franklin 1997). Second, I question as to whether these zones would be more susceptible to disturbances, such as windthrow, that would affect their ability to maintain the appropriate structural characteristics for northern spotted owls. Third, the acreage (27,951 acres) of these proposed riparian protection zones is suspiciously similar to the acreage (21,170 acres) of the 10% minimum of forested landscape to be maintained. In a worst case, the riparian protection zones would be substituted as the requirement for spotted owl nesting habitat. I assumed this was the case because the plan did not state that riparian protection zones would be in addition to other areas. If this is the case, I would seriously question whether long, thin corridors of "nesting" habitat would suffice given the potential problems outlined above.

I had the same concerns with the reliance solely on the amounts of foraging habitat in this section of the plan that I had expressed in my previous comments on the *Natural History* section. Again, my concerns here are that the amount of early-stage forests means little in terms of owl foraging habitat unless it is placed in the context of adjacent older forest. For example, only a small portion of a 1000-acre block of early seral stage forest surrounded by older forest would be considered a component of foraging habitat based on the existing scientific evidence discussed above.

The plan claims that at the end of the plan period (50-60 years from now), between about 178,865 and 185,877 acres of spotted owl nesting habitat will be extant. However, about 65% of the projected nesting habitat (Table 3, Volume IV) at that point will be what the plan refers to as Low Quality nesting habitat (habitat marginal for species occurrence supporting relatively low population densities at low frequencies). Thus, it is difficult to believe the proposed assumption that northern spotted owl pairs will be proportional to nesting habitat (to what degree they are proportional is never stated). Finally, the plan states that "this strategy should provide for a

¹ based on location of two sites in Headwaters forest on Map 27; it was never specified in the plan how many sites occurred in Headwaters Forest.

section 3.1.b states that only 18 acres will be protected around a non-nesting pair or single owl. Clearly, the owls nested in this scenario to have produced young. However, they were not nesting at the time of detection so they could be classified as non-nesting. In addition, there is no nest tree. Regardless, only 18 acres would be ultimately protected around this site even if the temporary protection of the 1000'-radius is applied during the duration of the breeding season.

4. In year 2, pair B is found roosting during the nesting period and exhibit no indications of nesting. According to section 3.1.b (page 20, vol. IV), only 18 acres is protected around the roost site regardless of whether it is the breeding season or not. In addition, the area where pair B was found with the two young in year 1 is now available for timber harvest, regardless of the fact that they had produced young in that area and not in the area where they were found in year 2.

The bottom line here appears to be that long-term protection for northern owl sites will be a single 18 acre area around the most recent activity center within a 0.5 mile radius circle. There were two additional points of confusion in protection of spotted owls under the *Protection of Activity Centers* section. First, the composition of the 18 acres to be protected is never explicitly described in the plan as to whether it will contain nesting, roosting, foraging owl habitat, or even non-habitat. For example, a pair nesting near the edge of a forested patch could have adjacent "non-habitat" (however that is defined) included in the 18 acres. Second, no priorities are given as to whether an activity center is a nest site, a roost site for a pair with young, a roost site for a non-reproductively active pair, or a roost site for a single individual in establishing long-term (>1 year) protection for activity centers within a 0.5 mile radius. As far as I could tell, only one activity center per owl site (defined by a 0.5 mile radius) will be maintained regardless of the reproductive activity that was represented by that or previous sites. Thus, in the worst case scenario, each spotted owl site will contain 18 acres of some unspecified vegetation type around an activity center that may or may not be a nest tree. I am concerned here that this will lead to a general decline in nest sites and forests supporting nesting structures on PALCO lands. In turn, this decline in suitable nesting areas could lead to a decline in the reproductive potential of the northern spotted owl population on PALCO lands.

The HCP states that "impacts of taking will be minimized ... by protecting all known active nest sites for the first five years of the plan" (para. 1 of Section F., Volume IV). At first, this statement seems contrary to the guidelines for Protection of Activity Center. However, the term "active" is open to considerable interpretation. If a nest is used in one year but not the next then one could interpret the nest as no longer being active and, thus, no longer in need of protection. If "active" is interpreted in this manner, then previously used nests within a site would no longer be protected. This interpretation would ignore the fact that northern spotted owls are sporadic breeders (Forsman et al. 1984). In addition, they often switch nests between years but may use old nests in subsequent years (Forsman et al. 1984:32). For example, they may use nest A in one year, then use nest B, and maybe nest C in subsequent years, and then return to use nest A again. If nests are ephemeral structures, such as debris clumps, then this is less of a problem. However, if they are more stable structures, such as broken-top trees or

However, PALCO developed no such matrix but discussed only amounts of discrete categories of spotted owl habitat. For example, none of the maps attached to the PALCO HCP showed the effects of habitat alterations on existing spotted owl sites.

CONCLUSIONS

I believe the Northern Spotted Owl Conservation Plan proposed in the Pacific Lumber Company Draft Sustained Yield Plan/Habitat Conservation Plan is unacceptable as an appropriate management strategy for northern spotted owls for three main reasons:

- 1) *There is inadequate use of existing scientific information* - I found the criteria for protecting and maintaining northern spotted owl habitat on Pacific Lumber Company Lands to be almost wholly unsubstantiated. A large body of work, especially on neighboring Simpson timber Company lands, was ignored in preparing the management strategies for this plan. Although this work was acknowledged, little of it was incorporated into management guidelines and specifications. In addition, hardly any of the research work on northern spotted owls that was conducted on Pacific Company timberlands was synthesized and integrated into this management plan. This in marked contrast to the Habitat Conservation Plan for northern spotted owls developed by Simpson Timber Company which synthesized and incorporated the body of research work conducted on their lands. I have reviewed a number of management plans for the northern spotted owl (e.g., Thomas et al. (1990), Simpson Timber Company HCP) and I found this plan to be the worst in terms of ignoring existing scientific information. I found almost no scientific credibility with respect to managing northern spotted owls in the proposed Habitat Conservation Plan for the Pacific Lumber Company. I believe my comments in the preceding sections of this document support this assertion.
- 2) *The proposed mitigation measures are inadequate* - The use of the 18-acre protection zones around northern spotted owl activity centers have no support in the existing scientific literature. Recent work on neighboring private and public lands (most of which was cited in the PALCO HCP) suggests that in terms of both reproduction and survival, considerably more protection is needed around existing nest and roost sites. In addition, there seem to be no assurances that more than 10% of the existing nesting habitat (as defined in this plan) will be maintained through the life of the plan. Much of the problem in formulating mitigation measures stems from poor definitions of habitat and ignoring the existing scientific literature on northern spotted owls in this region.
- 3) *The HCP lacks a well-designed monitoring program* - This plan should be considered unacceptable without a well-designed, carefully considered monitoring program. Such a program should include an appropriate sampling design, a

- 3) *Incorporation of experiments into "take" and management strategies* - Timber harvesting will occur under this plan, regardless of the adopted management strategies. Thus, there are opportunities to expand Pacific Lumber Company's understanding of how northern spotted owls react to different timber harvesting regimes and cutting practices. I advocate the inclusion of well-designed, large-scale experiments into the HCP. Such experiments should examine the effects of timber harvesting on northern spotted owl populations. This "adaptive management" is often proposed in a general sense but rarely is it executed properly. In addition, such experiments can benefit the company by allowing timber harvesting to occur at some level and can benefit spotted owls if timber harvesting can be done such that spotted owl populations are maintained. However, these experiments must be well-designed and validly executed to provide reliable knowledge on how timber harvesting activities affect northern spotted owls.

LITERATURE CITED

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Donzales

Memorandum

To : Mr. Roger Thompson, Deputy Chief, Forest Practice
Coast-Cascade Region
California Department of Forestry and Fire Protection (CDF)
Post Office Box 670
Santa Rosa, California 95402-0670

Date : October 26, 1998

From : Department of Fish and Game - Region 1
601 Locust Street, Redding, California 96001

RECEIVED
OCT 28 1998
FISH AND GAME
EUREKA, CA

Subject : Timber Harvest Plans (THP) 1-97-004 HUM and THP 1-98-259 HUM

The Department of Fish and Game (DFG) participated in a field review of the subject THPs on October 6, 1998, and October 13, 1998. The purpose of these site visits was to evaluate whether operations associated with these plans were conducted in accordance with the December 4, 1996, Northern Spotted Owl Resource Plan (NSORP) and the associated January 14, 1997, letter of concurrence.

THP 1-97-004 HUM was approved on March 19, 1997. Under the Plan Addendum to Item No. 32 of the THP for northern spotted owls (NSOs), page 54, the plan states "This THP is being submitted under Option A of 14 CCR 919.9. Operations will be conducted in compliance with the recently approved Spotted Owl Resource Plan."

THP 1-98-259 HUM was approved on August 28, 1998. Under the Plan Addendum to Item No. 32 of the THP for NSOs, page 44, the plan states

This THP is being submitted under 14 CCR 919.9(a). A copy of SCOPAC's Spotted Owl Resource Plan (NSORP) is attached in section VI. The THP area is within 1000' feet of an active NO [NSO] activity center. Copies of the habitat maps and analysis of post harvest habitat for NO's [NSO's] are attached in section V.

No timber operations shall be conducted within 500 feet of the NSO nest during the NSO breeding season.

Definitions Pertinent to the NSORP

The NSORP states under Item II (1) .

No timber operations shall occur within the area encompassed by a 500 ft. radius from a tree containing an NSO nest or activity center unless independently reviewed by the DFG and approved by the Director as not constituting a take. Timber harvest operations may be conducted in this area outside the breeding season if independently reviewed by the DFG and approved by the Director as not constituting a take. The shape of this area may be adjusted to conform to natural landscape attributes such as draws and watercourses, so long as it retains the total area required (18 acres).

Mr. Roger Thompson
October 26, 1998
Page Two

The NSORP states under Item II (2)

Within the area between a 500 ft. radius and a 1,000 ft. radius of a nest or activity center the habitat qualities of functional roosting habitat shall be maintained. A minimum of 60% average canopy closure with trees averaging a minimum 11" DBH shall be maintained, composed of a diversity of species similar to that found before the start of operations. The shape of this area may be adjusted to conform to natural landscape attributes such as draws and watercourses, so long as it retains the total area required (approximately 72 acres).

Functional roosting habitat is defined in the NSORP under Item II(7)(c) as

stands where average stem diameter is >11" DBH among dominant and codominant trees. Hardwood and conifers provide an average of at least 60% canopy closure but the stand can have a high degree of variability. Stand size and configuration must be sufficient to provide multiple perch sites which are suitable for protection from various environmental conditions, including wind, heat, and precipitation.

An activity center (AC) is defined in the NSORP under Item (II)(d) as "a site where a single owl or pair of owls consistently roost during the breeding season. The specific location of an AC may move from year to year." The NSO breeding season is defined under Item I as March 1 to August 31.

History of DFG Involvement With THP 1-97-004 HUM

On May 21, 1997, Mr. Sal Chinnici, representing Scotia Pacific Holding Company (SCOPAC), requested in writing approval to clear-cut approximately three acres within the 1,000-foot protection zone of the 1997 nest site (Area A on map Exhibit 1) to clear-cut approximately two acres within the 1,000-foot protection zone of the 1997 nest site (Area B on map Exhibit 1), to add approximately nine acres to the 1,000-foot zone to mitigate for the clear-cut harvesting proposed in the 1,000-foot zone and to construct approximately 600 feet of seasonal road through the 500-foot zone. On September 3, 1997, the DFG provided specific conditions in writing for operations in the 500- and 1,000-foot zones which would accommodate the May 21, 1997, request by Mr. Chinnici and protect the NSO site.

On August 6, 1998, Mr. Sal Chinnici submitted another written request for approval to begin operations in the crosshatched area shown on Exhibit 2 (attached) prior to the August 31 end of the NSO breeding season. On August 11, 1998, the DFG provided written approval of Mr. Chinnici's request to begin operation in the area depicted on the map prior to August 31, while stipulating "unless the exact location of

Mr. Roger Thompson
October 26, 1998
Page Three

the 1998 nest tree is positively identified, both the 1997 nest site and 1998 activity site must be protected." The purpose for our comment was to clarify the NSO's location prior to beginning early operations. The NSOs were reported nesting in a new location for 1998 but appeared to still be consistently located at the 1997 nest site.

Our approval to begin operation early in 1998 did not authorize any operations other than early operations in the area identified on Exhibit 2 provided in Mr. Chinnici's August 6, 1998, request. SCOPAC's survey data for surveys conducted in the vicinity of the THP (July 2, 1998, July 13, 1998, July 27, 1998, August 11, 1998, August 21, 1998, and August 30, 1998) both before and after Mr. Chinnici's request indicate the presence of an NSO activity center being consistently located in the same approximate location during the breeding season within 1,000 feet of the harvest boundary. On all occasions, both adult and juvenile NSOs were contacted.

History of DFG Involvement With THP 1-98-259 HUM

The DFG has not been involved in any aspect of this plan prior to our field review on October 13, 1998.

Observations and Conclusions

Following are comments pertaining to (1) the 1998 nest site and protection zone, (2) the 1998 activity center and protection zone and (3) the 1997 nest site and protection zone. The 1998 activity center and the 1997 nest site are the approximate same location. The NSOs nested at location X (see Exhibit 3) in 1997, shifted nesting to location Y in 1998, and then, following nesting in 1998, returned to location X with young to roost. The following descriptions unless stated otherwise are keyed to Exhibit 3.

At the time of our field review on October 6, 1998, all the clear-cut/yarder portion of THP 1-97-004 HUM, Unit #3, was felled. We witnessed clear-cut harvesting within the 1,000-foot zone of both the 1998 activity center (X) and the 1998 nest site (Y) where roosting habitat should have been maintained. During our October 13, 1998, review, we measured the distance from the 1998 activity center (X) to the edge of the clear-cut and found the distance to be 185 feet. Consequently, this confirmed (1) operations had occurred within 500 feet of an activity center (X), (2) unauthorized operations had occurred within 1,000 feet of an activity center during the breeding season (X and Y) based on the work schedule SCOPAC gave to CDF and (3) roosting structure was not maintained within 1,000 feet of an activity center (X and Y).

The criteria for functional roosting habitat is to maintain both an average 60% canopy in the 1,000-foot zone and to maintain a stand of trees averaging 11-inch diameter base height (dbh) to provide protection from predators and storms.

Mr. Roger Thompson
October 26, 1998
Page Four

Functional roosting habitat characterized by consisting of perch and roost trees and providing protection for NSOs is now absent in those areas without standing timber, i.e., stands with an average stem diameter >11-inch dbh. The NSORP allows the configuration of the stand to be adjusted to conform to ridgelines and/or watercourses to provide biologically justifiable retention areas although there is no apparent biological justification for modification of this retention area.

The 1,000-foot zone around the 1998 nest tree (Y) was measured by Mr. John Lynot prior to our return to the plan area on October 13, 1998. His estimate of the distance between the 1998 nest tree and the edge of the clear-cut was 850 feet, 150 feet less than the 1,000-foot protection zone requirement. This deficiency ran for approximately 600 feet along the periphery of the 1,000-foot zone within THP 1-97-004, Unit 3. These operations also occurred during the breeding season based on the work schedule provided by SCOPAC.

A portion of THP 1-97-004 HUM, Unit 1, lies north of the 1998 activity center (X) and is partially within the 1,000-foot protection zone. Operations in this unit were addressed in the September 3, 1997, memo (attached) in which DFG agreed to allow clear-cut harvesting of Area A provided the mitigations listed in our memo were followed. These mitigations are included in the September 23, 1997, Amendment No. 5 of the THP. These mitigations were not followed. As early as July 2, 1998, and again on July 13, 1998, July 27, 1998, and four dates in August 1998, the NSO and young were sighted at the 1998 activity center (X). Even though the NSOs were not nesting, their consistent presence during the breeding season with young constituted the existence of an activity center and this area should have been protected under the NSORP with no operations within 500 feet and no operations within 1,000 feet during the breeding season and maintenance of roosting habitat within 1,000 feet. Operations would have to have occurred in Unit 1 and Unit 3 between June 15, 1998, the date SCOPAC amended the 1998 nest location into the THP and July 2, 1998, the date SCOPAC surveyors contacted the NSOs at the 1997 nest/1998 activity center (X) in the area within 1,000 feet of the activity center to remain consistent with the NSORP.

The 1998 nest protection zone (Y) is situated between THP 1-97-004 HUM and THP 1-98-259 HUM (see Exhibit 4) with the 1,000-foot zone overlapping portions of both plans. The 500-foot no-operations zone around the nest tree overlaps only THP 1-98-259 HUM. In addition to the 1,000-foot zone being deficient by approximately 150 feet, the canopy retention standard requiring an average 60% in the 500- to 1,000-foot radius around the nest appears deficient. The DFG and the CDF agreed to try to identify a methodology to assess the canopy retention in this zone by October 23, 1998. We also agreed to try to actually conduct the assessment by October 30, 1998.

Operations associated with THP 1-98-259 HUM occurred in the 500-foot zone around the 1998 nest (Y). These operations were associated with a landing at the terminal end of a spur road northeast of the nest. Trees, stumps and dirt were pushed off the landing and into the zone. A tractor had operated in the zone to push debris downhill away from the landing and into the 500-foot radius protection zone around the nest. Tractor tracks were visible in the dirt that had been pushed over the edge of the landing. Two flags which marked the 500-foot protection zone were missing and lying on the ground or buried.

Summary

The following represents a summary of the timber operations on THP 1-97-004 HUM and THP 1-98-259 HUM which are not consistent with the NSORP.

NSORP Section	THP 1-97-004 HUM	THP 1-98-259 HUM
Item II(1) No timber operations within 500 feet radius of a nest or activity center.	Operations including clear-cutting occurred within 185 feet of the 1998 activity center (X) in Unit 3.	Operations occurred within 500 feet of the 1998 nest site (Y) infringing on the zone approximately 60 feet NE of nest.
Item II(2) Functional roosting habitat shall be maintained between a 500- and 1,000-foot radius around nest or activity center.	<p>Substantial roosting structure was removed from Unit 1 and Unit 3 around the 1998 activity center (X). Habitat no longer consists of trees >11 inches dbh providing protection from predators and storms.</p> <p>The 1,000-foot zone around the 1998 nest site (Y) is only 850 feet on the southwest side. No biological justification for altering the shape of the zone was provided. Habitat no longer consists of trees >11 inches dbh providing protection from predators and storms.</p>	Based on ocular examination of the canopy cover, the canopy appears to be below the required average 60%. Canopy will be accurately estimated by the DFG.
Item II(3) No timber operations during the breeding season, March 1- August 31.	Operations in Unit 1 and Unit 3 within 1,000 feet of nest (Y) and activity center (X) occurred during the breeding season based on the work schedule SCOPAC provided to the CDF.	

Mr. Roger Thompson
October 26, 1998
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It appears that operations in areas other than the crosshatched area shown on Exhibit 2 were not authorized prior to August 31. For operations conducted after August 31, functional roosting habitat should have been maintained within 1,000 feet of the 1998 nest site (Y) and the 1998 activity center (X).

Based on our review, operation of these harvest plans was not in compliance with the conditions of the NSORP intended to avoid "take" of NSOs because the habitat qualities of functional roosting habitat were not maintained between the 500- and 1,000-foot radius of a nest and/or activity center. Functional roosting structure was not maintained in the areas that were clear-cut harvested and these areas no longer provide roost and perch opportunities or protection from climate and predators as required by the NSORP.

Take of NSOs is defined by Section 919.10(a) and (b), Title 14, California Code of Regulations (CCR), as occurring when feeding, breeding, nesting or sheltering behavior is significantly impaired or significantly disrupted. This site has been occupied by the same pair of owls for the past several years and they have consistently reproduced each year. The owls are banded to provide positive identification of the pair. The site is completely surrounded (see Exhibit 4) by operations which were occurring simultaneously well within the protection zones and during the breeding season. The NSORP states that "THP's which incorporate the elements of the NSORP as enforceable conditions will not likely result in take of NSO's." These two THPs did incorporate the NSORP as enforceable under the THP. However, the THPs were not appropriately implemented. Therefore, it is likely "take", as defined by Section 919.10 (a) and (b), Title 14, CCR, has occurred. Verbal discussions with SCOPAC representatives indicate that they do not agree with this interpretation.

Due to interpretation and implementation problems indicated by these observations, the DFG intends to meet on October 30, 1998, with SCOPAC to clarify the manner in which NSORP measures shall be interpreted. Contingent upon the outcome of those discussions, the NSORP may be revised or it may become necessary to utilize other consultation procedures to satisfy requirements of the Forest Practice Rules. If you have any further questions regarding this review or the information referenced in this memorandum please contact Environmental Services Supervisor Mark Stopher at (530) 225-2275 (CALNET 442-2275).



Donald B. Koch
Regional Manager

Attachments

cc: See attached list.

Mr. Roger Thompson
October 26, 1998
Page Seven

cc: Mr. Sal Chinnici
Scotia Pacific Holding Company
Post Office Box 712
Scotia, California 95565-0712

Mr. John Marshall
California Department of Forestry and Fire Protection
118 Fortuna Boulevard
Fortuna, California 95540-0425

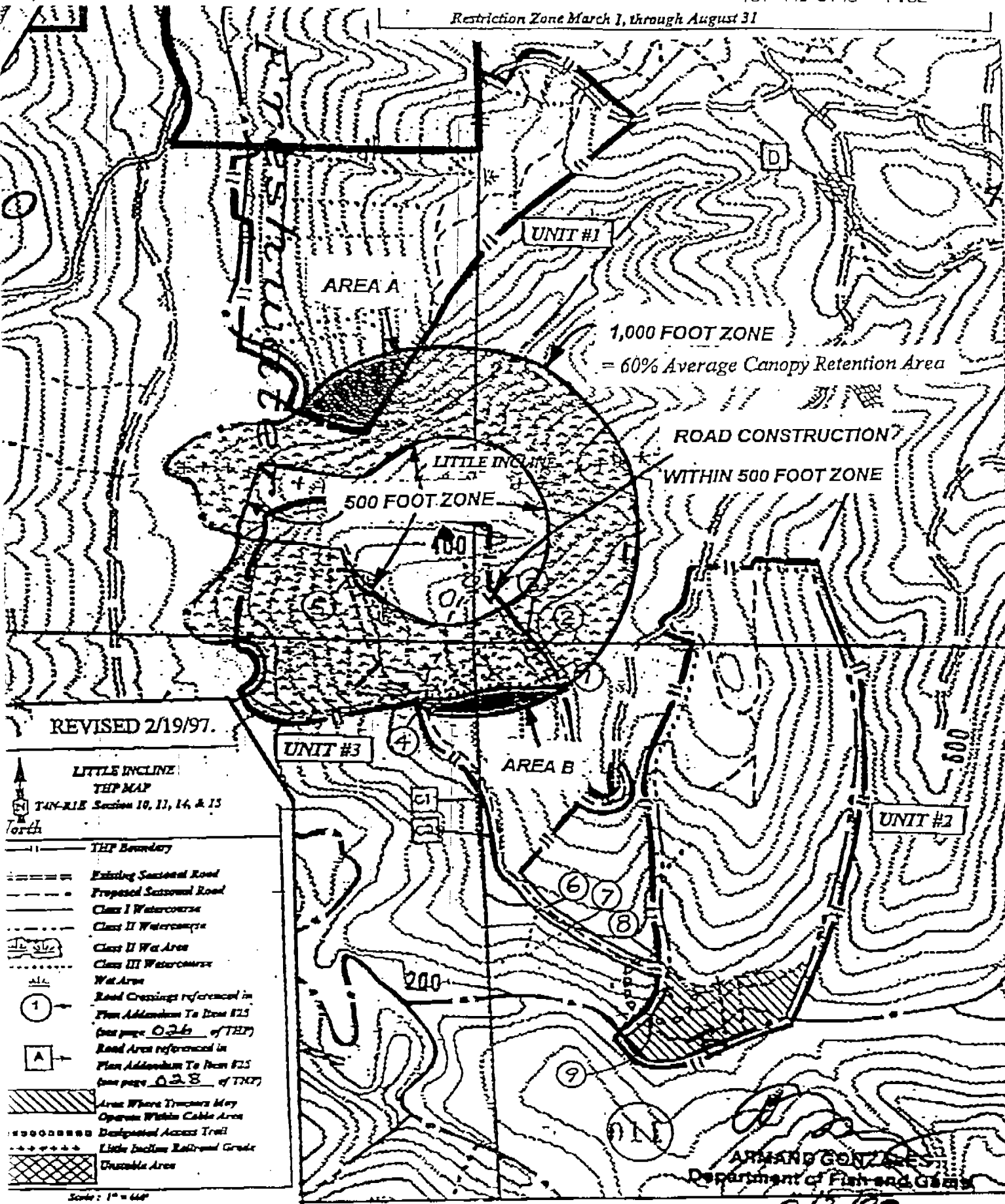
Mr. Phil Detrich
US Fish and Wildlife Service
Post Office Box 1006
Yreka, California 96097-1006

Mr. John Hunter
US Fish and Wildlife Service
1125 16th Street, Room 209
Arcata, California 95521

Mr. Mark Stopher
Department of Fish and Game
601 Locust Street
Redding, California 96001

Messrs. Ken Moore and Armand Gonzales ✓
Department of Fish and Game
619 Second Street
Eureka, California 95501

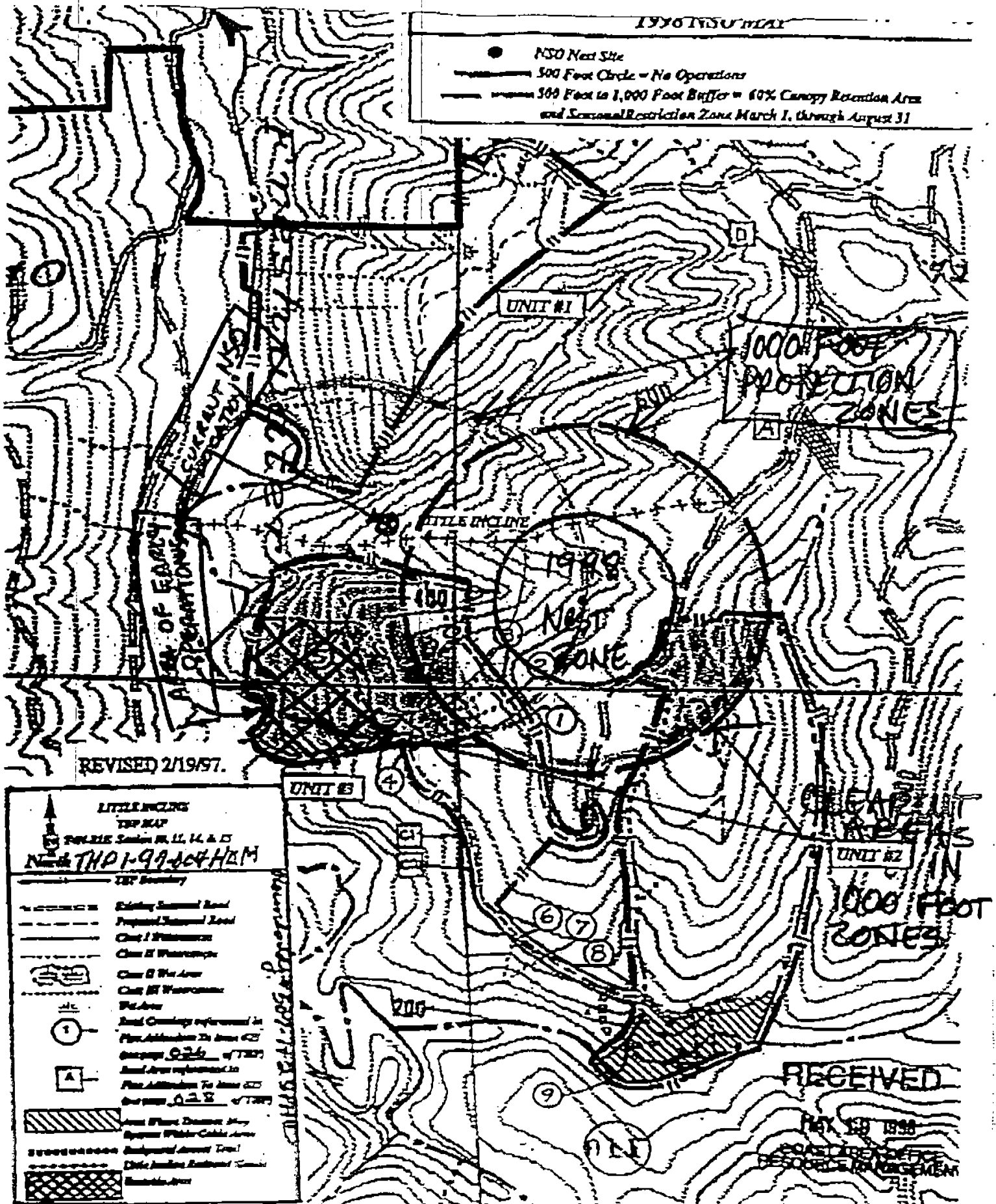
Restriction Zone March 1, through August 31



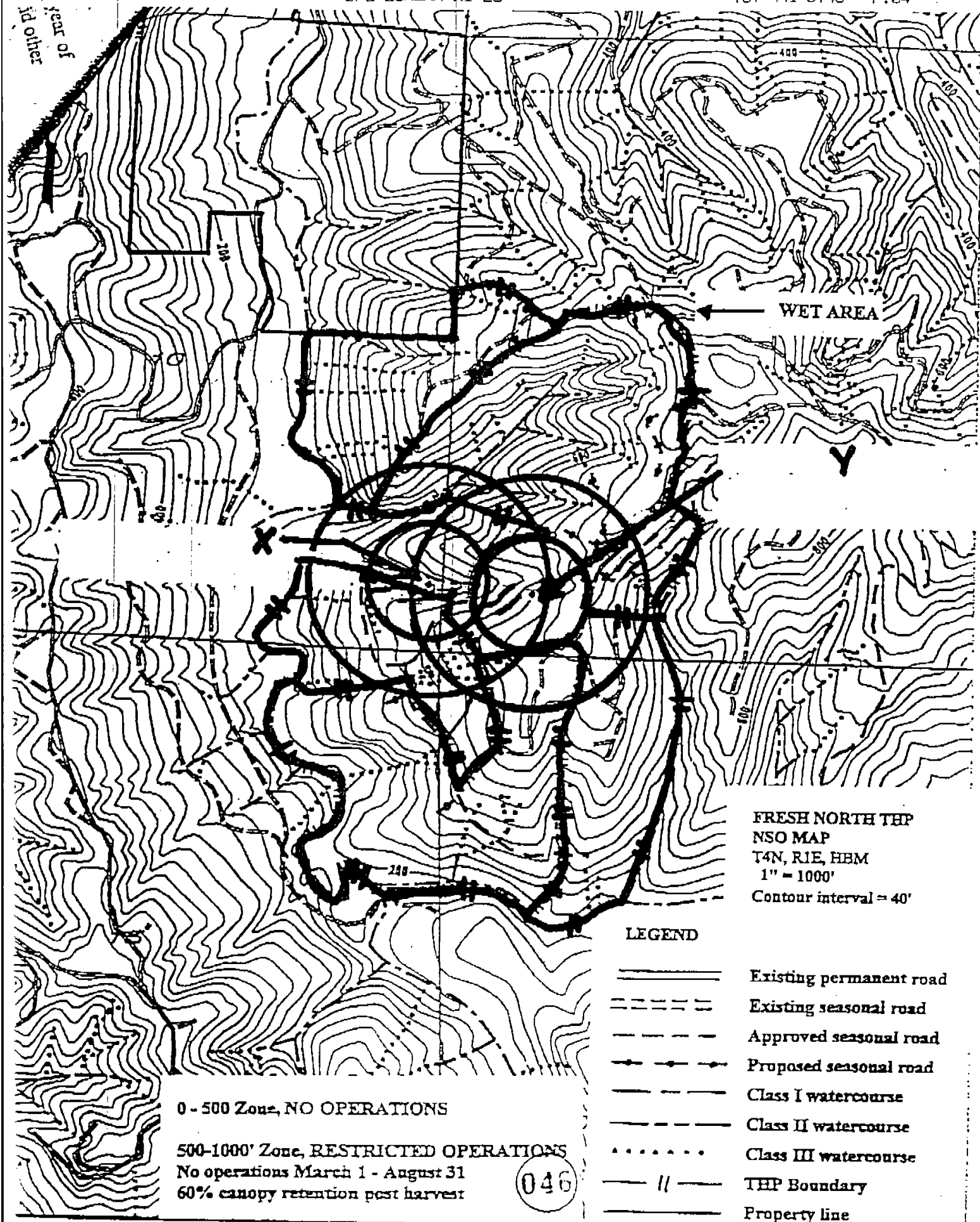
ARMANDO GONZALEZ
Department of Fish and Game

9/3/97

EXHIBIT 1



year of
id other



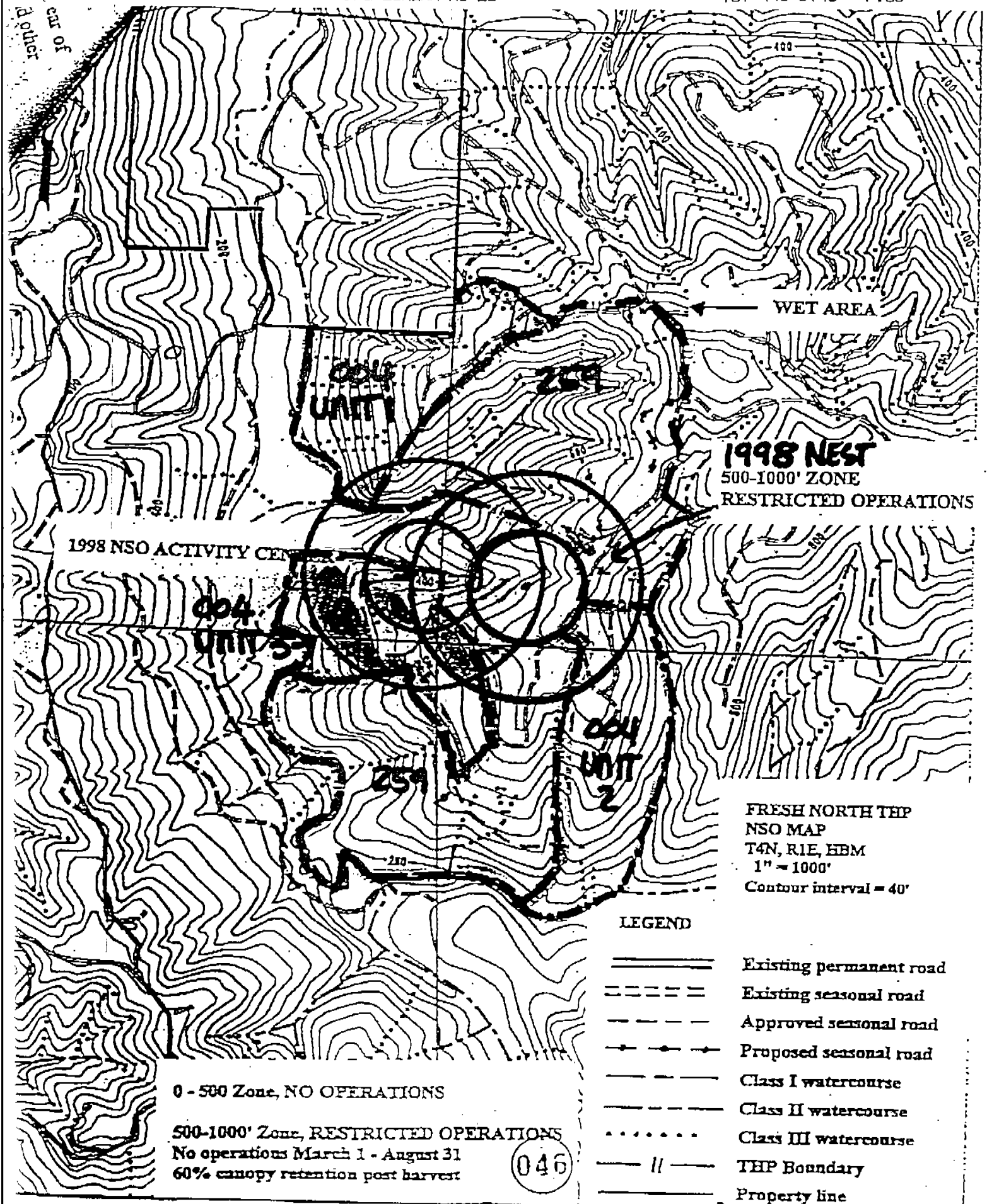


Exhibit 4

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, Governor

DEPARTMENT OF FISH AND GAME

819 SECOND STREET
EUREKA, CA 95501
(707) 445-6493



September 3, 1997

Mr. Sal Chinnici
Scotia Pacific Holding Company
P.O. Box 712
Scotia, CA 95565

Dear Sal,

I have reviewed the measures proposed in your letter dated September 2, 1997 for THP 1-97-004 HUM. Your proposal (see attached 8 pages) will govern operations within an activity center of a northern spotted owl.

Modification of the Standard Protection Measures described in the Spotted Owl Resource Plan dated December 4, 1996 and approved January 14, 1997, through acceptance of measures proposed, will not likely result in a "take" of a northern spotted owl. Operations within the 1000' foot zone should cease by February 1, 1998.

Please contact me if you have any questions regarding this correspondence. You may contact me at telephone (707) 441-5669.

Sincerely,


Armand G. Gonzalez
Environmental Specialist III

Attachment



SCOTIA PACIFIC HOLDING COMPANY, P.O. BOX 712, SCOTIA, CA 95565

(707) 764-2330 - Fax (707) 764-4400

September 2, 1997

RECEIVED

SEP 02 1997

D.F.G. - EUREKA

Mr. Armand Gonzales
Environmental Specialist III
California Department of Fish and Game
619 Second Street
Eureka, CA 95501

RE: Northern Spotted Owl Protection Measures for THP 1-97-004 HUM

Dear Armand:

This is a follow-up to our discussions which originally took place June 17, 1997, on site at Unit #3 of the Little Incline THP area. Also in attendance were Mark Stopher from Department of Fish and Game, as well as Adam Wyman and John Lynott from Scotia Pacific. Issues were again discussed with Adam Wyman and John Lynott while conducting a field visit (for an unrelated project) on July 9, 1997. Revised protection measures were presented to you by myself in Redding during our recent meeting there. Based on our discussions, we propose the following site specific measures to be implemented after August 31, which will retain protection for the Northern Spotted Owl (NSO) Activity Center (AC) while allowing further operations on the THP (see attached THP map).

- 1) Area "A" consisting of approximately three acres within the 1,000 foot zone in THP Unit #1 on Map may be clearcut. See "Map 1".
- 2) Area "B" consisting of approximately two acres within the 1,000 foot zone in THP area Unit #3 on Map may be clearcut. See "Map 1".
- 3) All trees within the clearing limit for the proposed road, turnout(s), and landing construction shall be marked by Adam Wyman, Sal Chinnici, or John Lynott prior to construction.
- 4) Construct 350 feet of seasonal road within the 500 foot no-cut zone. Road construction shall comply with the following conditions:
 - a. The road surface shall not exceed 14 feet in total width.
 - b. The road right of way, or clearing of vegetation shall not exceed 20 feet in total width.
 - c. An area of curve widening will be required within the 500 foot zone at the apex of a 90 degree turn. The curve length is 110 feet. The apex section of the turn will require a clearing limit of 50 feet in width for a distance of 40 feet. The remaining portions of the 110 foot curve will require a clearing limit of 28 feet or less. See attached diagrams.
- 5) Construct the seasonal road and one landing in the 1,000 foot zone. Road and landing construction shall comply with the following conditions:
 - a. The road surface shall not exceed 14 feet in total width.
 - b. The road right of way, or clearing of vegetation shall not exceed 20 feet in total width.
 - c. Road alignment shall be designed to avoid passing near damaged or leaning trees which may pose a safety hazard which would require additional tree/vegetation clearing.

- d. No turnouts shall be constructed within the 500 foot zone. Turnout(s) may be allowed within the 1,000 foot zone with prior demonstration and approval by DFG. Turnouts shall be located in areas naturally void of trees or where tree clearing would be minimal. Turnouts will add an additional 10 feet of width to the road, and not to exceed 50 feet in length unless approved by DFG
- e. Landings shall not be constructed within the 1,000 foot zone if construction involves clearing vegetation or opening the canopy for more than 0.25 acres. One landing may be constructed within this zone, which will result in the clearing limit of the landing to be within 525 feet of the NSO nest.
- f. Access to the seasonal road within the 1,000 foot zone shall be blocked each year during the NSO breeding season, and permanently blocked following operation on the plan.
6. There shall not be openings in the forest canopy greater than 0.25 acres in size within the 1,000 foot zone. Post-harvest, the canopy closure shall average 60% in the 1,000 foot zone.
7. The Palco staff wildlife biologist and Adam Wyman or John Lynott shall meet with the LTO prior to beginning operations to explain operational conditions and restrictions.
8. DFG shall be notified for a post-harvest inspection prior to the end of the active period of the plan.
9. The area within the 1,000 foot zone shall be treated with sensitivity. Access to non-operational areas should be avoided. Human disturbance, domestic pets, loud noises such as Jake brakes and horns and littering should be discouraged. Signs reminding loggers and truck drivers to keep quiet or remain on the road should be placed along the road in the 500 foot zone.
10. The 500 foot zone and the 1,000 foot zone shall be modified to allow operations within these zones as depicted on the attached map.
11. A concerted effort shall be made by the LTO to protect and prevent against damaging leave trees during road construction, log hauling, yarding and maintenance activities.

We feel that this accurately represents the discussions we have had and incorporates the Department's concerns.

Sincerely,

SCOTIA PACIFIC HOLDING COMPANY



SAL CHINNICI
Wildlife Biologist

Enclosures

20f8



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Coastal California Fish and Wildlife Office
1125 16th Street, Room 209
Arcata, California 95521

707-822-7201
FAX: (707) 822-8411

RECEIVED

SEP 30 1998

D. F. G. — EUREKA

September 28, 1998

In Reply Refer To:
1-14-98-TA-206

Mr. Tom Herman
Pacific Lumber Company
125 Main Street
Scotia, CA 95565

Subject: Technical Assistance Regarding the Howe Creek Timber Harvest Plan 1-95-225HUM.

Dear Mr. Herman:

This letter is in regard to the field review of the Howe Creek Timber Harvest Plan (THP) conducted on September 22, 1998 by the U.S. Fish and Wildlife Service (Service). During that visit, road reconditioning work completed by Pacific Lumber Company (PALCO) was evaluated for potential effects on northern spotted owls (*Strix occidentalis caurina*). According to PALCO representatives, this work was completed sometime after August 31, 1998. The main road that was reconditioned was immediately adjacent to a 1998 spotted owl nest tree, and an additional spur road within 500' of the nest was also reconditioned. There was a total of about 1000' of reconditioned road within 500' of the nest.

Service representatives noted that road grading had taken place which had buried or moved down woody material, removed shrubs and small (<4" DBH) conifer and hardwood reproduction, and knocked down at least one 8" DBH tanoak tree which had a relatively large crown. Water bars were also removed and one 18" culvert had been installed. Other small trees adjacent to the roads had also been cut, including at least one redwood tree about 15" DBH. Other trees adjacent to the roads had been limbed, a large redwood tree about 20' from the nest tree had been damaged by equipment, and at least one redwood burl had apparently been cut and removed.


These actions may have resulted in damage to the structural integrity of spotted owl habitat within 500' of the nest. However, because the road reconditioning work was conducted outside of the spotted owl breeding season, at this time it is difficult to assess any effects on spotted

owls. However, because the Service was not consulted prior to the road reconditioning work, this action did not comply with the "Pacific Lumber Company Spotted Owl Management Plan" dated November 16, 1992 and revised January 18, 1996, with which the Service concurred on February 2, 1996. This plan states that "No timber harvest, including operations conducted by PALCO, its agents or contractors pursuant to THP's, exemptions, or an emergency notice, etc., will be permitted in this area without notice of and opportunity to discuss with the Service, means to avoid "take" in violation of Section 9 of the ESA."

During the field review on 22 September, 1998 Service and PALCO representatives agreed that use of the road for hauling of timber, by itself, would not be likely to harm or harass spotted owls because the breeding season had already ended. On September 23, 1998 the Service agreed that resumption of hauling of timber on the road in question would not be likely to result in unauthorized incidental take with the condition that no additional habitat alteration or vegetation removal would be conducted within 500' of the nest tree without prior consultation with the Service. Before ceasing use of the road for the winter season, the Service recommends that PALCO, as much as possible, return the road to the condition that existed prior to the reconditioning work. For example, down woody material should be placed back into the road. The Service requests that PALCO provide us with data regarding reproductive status of the spotted owls at this site in the spring of 1999. The Service also suggests that PALCO contact the California Department of Forestry and Fire Protection to determine if it would be appropriate to amend the THP per the above measures.

If you have questions regarding this correspondence, please contact Mr. John Hunter of my staff at (707) 822-7201.

Sincerely,


S. Bruce G. Halstead
Project Leader

cc: CDFG: Armand Gonzales, Eureka, CA
cc: CDFG: Mark Stopher, Redding, CA
cc: CDF: John Marshall, Fortuna, CA
cc: USFWS: John Mendoza, Chico, CA